## Claims:

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- 1. A parvovirus vector having parvovirus DNA excisable from the vector DNA in a parvovirus-permissive cell, wherein the parvovirus DNA has a lft terminus which comprises a parvovirus minimal origin of replication.
- 2. The arvovirus vector according to claim 1, characterized in that the right terminus of the parvovirus DNA comprises internal replication sequences.
- 3. The parvovirus vector according to claim 1 or 2, characterized in that the parvovirus minimal origin of replication comprises the consensus sequence of an NS1 nicking site, particularly CTWWTCA.
- 4. The parvovirus vector according to any one of claims 1 to 3, characterized in that the parvovirus DNA originates from a mammalian parvovirus.
- 5. The parvovirus vector according to any one of claims 1 to 3, characterized in that the parvovirus DNA is a rodent parvovirus.
- 6. The parvovirus vector according to claim 5, characterized in that the rodent parvovirus is MVM or H-1.
- 7. The parvovirus vector according to any one of claims 1 to 3, characterized in that the parvovirus DNA comprises a combination of DNA sequences of various parvoviruses.
- 8. The parvovirus vector according to claim 7, characterized in that the parvovirus DNA originates from H-1 and its left terminus comprises a minimal parvovirus origin of replication of MVM.
- 9. The parvovirus vector according to any one of claims 1 to 8, characterized in that the parvovirus DNA region coding

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for the capsid proteins is partially or fully replaced by an exogeneous DNA.

- 10. The parvovirus vector according to claim 9, characterized in that the exogeneous DNA codes for a polypeptide usable in a treatment.
- 11. The partovirus vector according to claim 10, characterized in that the polypeptide is a cytokin or a toxin.
- 12. The parvovirus vector according to claim 11, characterized in that the cytokin is a chemotactic polypeptide.
- 13. The parvovirus vector according to claim 12, characterized in that the chemotactic polypeptide is MCP-
- 14. The parvovirus vector according to any one of claims 1 to 13, characterized in that it is present as parvoviral particle.
- 15. A system comprising the parvovirus vector according to any one of claims 9 to 13 and a cell expressing the capsid proteins of parvovirus.
- 16. The system according to claim 15, characterized in that the expression of the capsid proteins is controlled by a helper plasmid containing an SV40 origin of replication and the cell expresses an SV40 large T antigen.
- 17. The system according to claim 15 characterized in that the DNA coding for the capsid proteins is under the control of the parvovirus promoter P38.
- 18. A method of producing the parvoviral particle according to claim 14, comprising the transfection of a parvovirus-

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permissive cell with a parvovirus vector according to any one of claims 9 to 13, the cell expressing the capsid proteins of a parvovirus, and the isolation of the parvoviral particle.

Use of the parvovirus vector according to any one of claims 9 to 14 for gene therapy.

Use according to claim 19, characterized in that the gene therapy is carried out in the case of tumor diseases.

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